

brown, paler and more grey on cheeks and across muzzle, much darkened with blackish on posterior half of back and on outer surface of hind legs. Inner surface of hind legs and line along sides of body bordering white of underparts tawny-ochraceous, becoming lighter and duller anteriorly and continued along sides of neck and spreading over outer surface of fore legs. Feet dull tawny-ochraceous suffused with blackish. Tail blackish suffused with tawny-ochraceous beneath surface. Underparts creamy white; chin and interramial region light drabby-grey.

Skull and teeth.—The skull and teeth show no special peculiarities.

Measurements.—Type: hind foot 60 mm.; ear from meatus 29. Skull: zygomatic breadth 31·4; postorbital constriction 17·8; interorbital constriction 17; rostral breadth at front of nasals 7·4; nasal 14; diastema 12·8; mandible 32·4; maxillary tooth-row 9·8; mandibular tooth-row 9·8.

Specimens examined.—Three, all from the type locality.

LXI.—*New Species of African and Indo-Malayan Hesperiidæ.* By Colonel C. SWINHOE, M.A., F.L.S., &c.

Family Hesperiidæ.

Casyapa kallima, nov.

♂ ♀. Dark olive-brown; frons, palpi, body below, and legs bright orange-ochreous; antennæ with ochreous and brown bands: fore wings with a very broad and prominent orange-ochreous band from the outer margin above the hinder angle, which it does not reach, to the middle of the costa, running inwards for some distance along the costal vein, just below its middle the band is slightly contracted; cilia of both wings dark brown; no other markings above or below.

Expanse of wings, ♂ $2\frac{2}{10}$, ♀ $2\frac{5}{10}$ inches.

Milne Bay, New Guinea (types in B. M.).

Allied to *C. callixenus*, Hew., from Dorey.

Tajia lousa, nov.

♀. Blackish brown; palpi white beneath; frons with a white spot on each side: fore wings with two large hyaline spots at the end of the cell, one outside its lower angle and

another close beneath it, all more or less triangular; a sub-apical row of six small spots in the usual recurved line: hind wings with about one half of the lower portion white, the white running up the abdominal margin to the base; two very large black spots in the middle of the disc touching the inner side of the outer curve of the brown portion of the wing; no marginal marks or spots. Underside with two additional hyaline spots on the fore wings near the hinder angle; hind wings with a somewhat narrow black costal border, the two discal spots much smaller, and one minute black mark on the outer border below the middle; legs and body white.

Expanse of wings 2 inches.

Rossel Island (type in B. M.).

Sarangesa haplopa, nov.

♂. Dark blackish brown with a slight red tinge; palpi whitish below: wings above with spots and bands much as in *subalbicans*, Bethune-Baker, but the submarginal band of the fore wings is curved evenly with the outer margin; a hyaline spot on the upper part of the cell at three fourths and another immediately above it; a small round spot below the lower end of the cell and a larger triangular spot immediately below it, also three small subapical spots close together, the centre spot a little inwards. Underside very different to *subalbicans*, being uniformly blackish brown, the spots on the fore wings as above; a blackish discal band, a pale band just beyond it, even with the outer margin on both wings; internal spots as above; a dark macular submarginal band.

Expanse of wings $1\frac{9}{10}$ inch.

E. Ruwenzori, 7000' (G. Legge) (type in B. M.).

Celenorhinus chinensis, nov.

♂. Antennæ brown beneath, white above, with thin brown bands; club white, with brownish tips; head, body, and wings uniform blackish brown, with an olive tint; palpi white beneath; abdomen with thin ochreous bands on the last four segments and an ochreous tip: fore wings with two large, nearly square, semihyaline white spots or patches, the first nearly filling up the end of the cell and extending right across it, the other immediately below it of the same size and shape, the two forming a band which is very slightly outwardly oblique; a small round spot outside the centre of this band, another below its outer lower edge, and a still smaller spot below this and more inwards; subapical dots and large

orange-ochreous spots on the hind wings as in *C. pyrreha*, de Nicéville; cilia of fore wings white, of hind wings ochreous.

Expanse of wings $2\frac{1}{10}$ inches.

Omei-shan, W. China (Crowley Bequest); two examples (type in B. M.).

The central white semihyaline band is more erect than in any other species of the *leucocera* group.

Celænorhinus Plötzii, nov.

♂. Dark blackish brown with an ochreous tinge; upper half of the antennæ and club ochreous on the underside: fore wings with a very broad orange-ochreous discal band, not quite touching either margin, slightly narrower towards costa, its inner margin a little before the middle of the wing and nearly straight, its outer margin somewhat roundly curved and uneven in its upper half; an orange-ochreous subapical spot: hind wings with a large orange-ochreous apical patch. Underside slightly paler; fore wings as above; hind wings without markings; palpi and face orange-ochreous; abdomen and legs below smeared with ochreous.

Expanse of wings $1\frac{8}{10}$ inch.

Bipindi, Cameroons; one example.

Allied to *C. atratus*, Mab., but quite distinct.

Abaratha siamica, nov.

♀. Pale pinkish brown, almost as pale as *A. saraya*, Doherty; palpi with some white hairs beneath: fore wings with a semihyaline white spot in the cell at one fourth, with a blackish spot on its outer side and a mark below it, this being the limit of the basal brown space; following this is a pale pinkish band of three large square spots joined together, the centre one outermost; a broken lunular spot near end of cell, a round spot below the end, a minute white spot above this, another below it, both beyond it; a little larger spot, below again and inwards, not far from the centre of the hinder margin, the usual three subapical spots: hind wings with four brownish bands of conjoined spots, with pale pinkish spaces between. Underside paler and more pinkish, the hyaline spots as above, the bands more prominent and more macular, many of the spots being disconnected; legs whitish.

Expanse of wings $1\frac{8}{10}$ inch.

Shan States, Siam (type in B. M.).

Arnetta Binghami, nov.

♂. Dark blackish brown; antennæ white at the tips and with white crook; palpi brown beneath, not white as is usual in this genus: fore wings narrower than usual; two white semihyaline spots at the end of the cell, a small lunular semihyaline mark below the end and a little beyond it, a small white spot a little beyond the upper end of the lunule, two white subapical dots: hind wings without markings. Under-side nearly as dark as above; markings of the fore wings similar, except that the two subapical dots are absent.

Expanse of wings $1\frac{1}{2}$ inch.

Tavoy Valley, Burmah (*Bingham*) (type in B. M.).

Salween Valley (*Bingham*).

Superficially looks like a *Parnara*, but has the venation and antennæ of *Arnetta*.

Telicota ternatensis, nov.

♂. Orange-ochreous, as in *palmarum*, Moore, but darker and brighter coloured; antennæ ochreous brown, with black bands and white apiculus; palpi pale ochreous, and a band of that colour between the antennæ; thorax and abdomen brown, the former with long ochreous hairs on each side: fore wings with a thin black streak on the subcostal vein and all the veins black, another on the internal vein, a dull brown band from the base to the middle under vein 2; a black oblique band containing the sexual mark quite straight to the end of the cell, then outwards below vein 6; the outer marginal band much as in *palmarum*: hind wings blackish brown, with a large ochreous spot above the middle of the centre, and a broad ochreous patch in the disk, as in *palmarum*. Under-side: fore wings with the black discal band extended hindwards, filling the basal space below the cell, and extended in a paler form along the hinder margin to the angle; the outer band is pale and has a black macular band limiting its inner margin; the hind wings are ochreous irrorated with black atoms except the spot and patch, the former has an outer black line and the latter a black macular border.

Expanse of wings $1\frac{9}{10}$ inch.

Ternate (*Wallace*) (type in B. M.).

Morotai (*Bernstein*).

This species is not unlike *palmarum*, Moore, but that insect belongs to Mabille's genus *Corone*, the species of which, though resembling *Telicota*, have no sex-mark.

Caltoris laraca, nov.

♂. Of the usual olive-brown colour; palpi below and pectus whitish: fore wings with a white diaphanous spot at upper end of cell, another obliquely below it before the lower end, a large square spot touching the lower end of the cell and a smaller equally square spot obliquely above it, its inner lower corner nearly touching the upper outer corner of the lower spot; a dot in a line beyond these two spots, and above this are the three usual subapical dots in the usual curve; a small spot in the middle of the internal vein; hind wing with two spots close together in the middle of the disk; the centre part of the fore wing is darker than the remainder of the wing, and the hind wing is broadly margined with darker brown along the costa. Underside much paler, with an ochreous suffusion; spots as above, the lower internal part of the fore wing suffused with black.

Expanse of wings $1\frac{8}{10}$ inch.

Woodlark Island (*Meek*) (type in B. M.).

Notocrypta aluensis, nov.

♂ ♀. Uniform dark black; palpi white beneath: fore wings with an outwardly curved, curiously shaped medial band composed of four spots from the middle of the costa to near the hinder margin before the angle; first spot quite small and nearly touching the costa, the second large, nearly round, the third cylindrical, its outer two thirds extending beyond the round spot, all three touching each other; the front spot small, excavated on its inner side like the letter **C** below the outer end of the third spot and slightly separated from it: hind wings unmarked; cilia black. Underside blackish brown, the band not macular; male with two white subapical dots, first near the costa, the others well separated from it and nearer the outer margin; female with a series of five subapical dots, curving upwards and then downwards.

Expanse of wings, ♂ $1\frac{6}{10}$, ♀ $1\frac{8}{10}$ inch.

Alu Islands.

Somewhat resembling *wokana*, Plots, from Aru and Ké Islands.

Ismene lusca, nov.

♀. Palpi, face, and pectus scarlet-orange, last joint of palpi brown; antennæ black; head, body, and wings olive-brown; abdomen with scarlet-orange bands on the last two segments; anal tuft similarly coloured: fore wings without

any markings whatever: hind wings with the abdominal margin from vein 2 scarlet-orange. Underside: thorax and legs with orange hairs; abdomen scarlet-orange with black bands on each side; wings paler than above, tinted with scarlet-orange; the lower part of fore wings from vein 2 whitish grey; the hind wings with the interspaces streaked with scarlet-orange, becoming more intense towards the abdominal margin, where the wing is for about one third entirely of that colour.

Expanse of wings $2\frac{4}{10}$ inches.

Maros, S. Celebes (type in B. M.).

Hasora minsona, nov.

♂. Palpi ochreous grey; eyes with a white ring round them; last joint of palpi, antennæ, head, body, and wings of a uniform olive-brown with a slight ochreous tint; frons and head tinted with blue-green; abdomen with dark brown segmental bands: wings without any markings; cilia pale greyish ochreous. Underside much paler: fore wings with the cell-space and a short transverse band beyond the cell pale and ochreous tinged; hinder margin also pale: hind wings darker, no blue reflections; anal lobe, which is restricted and blunt, with a very large blackish patch; an attenuated white band from the costa near apex to the abdominal margin above, the blackish patch, which it touches, the band broken above the patch; body greenish grey; legs ochreous grey.

Expanse of wings $2\frac{1}{10}$ inches.

Borneo; two examples (Crowley Bequest) (type in B. M.).

Hasora wortha, nov.

♂. Palpi ochreous grey, whitish at the sides; eyes ringed with white; antennæ brown, tinged with red in parts and whitish on the underside below the club; head, body, and wings olive-brown, tinged with ochreous, especially towards the base of fore wings and on the lower and abdominal portions of the hind wings; no markings; cilia ochreous grey. Underside paler; a broad darker shade on the fore wings below the cell and a discal shade: hind wings darker; a broad pale shade across the disk and on the abdominal margin; anal lobe as much restricted as in *anura*, de Nicé.; a large blackish patch on and inside of it, on the upperside of which is a small ochreous spot; body brown; legs ochreous.

Expanse of wings $2\frac{1}{10}$ inches.

Java (Crowley Bequest) (type in B. M.).

Hasora hobroa, nov.

♂. Palpi, head, and thorax green; abdomen pale brown, its basal half covered with dull green hairs; antennæ black; wings olive-brown, paling towards base with an ochreous tinge; a green patch on the costa of fore wings one third from the base; a slight greenish-grey suffusion below costa at the base; the hind wings with the basal and abdominal areas covered with greenish-grey hairs; cilia brown, with pale tips; wings without any other markings. Underside: wings paler and suffused with ochreous; fore wings with the apical and outer marginal spaces darkest; hind wings with a broad pale discal shade, the wing dark on both sides of it and merging into blackish in and above the anal lobe, which is much restricted; cilia with a white short basal line above the anal line; pectus and body grey tinged with green; legs darker green.

Expanse of wings $2\frac{2}{10}$ inches.

Celebes (type in B. M.).

The fore wings are shorter than usual and the hind wings are very deep and round, and it has no stigma.

Hasora meala, nov.

♂. Palpi below and a ring round the eyes ochreous grey; head, body, and wings olive-brown, as in *chromus*, (Gram.); cilia brown; wings without markings; wings below paler and with a gloss on them; fore wings with the costa broadly smeared with blue-green above the cell, a short dark transverse shade beyond the end: hind wings with a thin, straight, transverse white band or thick line from the costa a little before the apex to the abdominal margin one fifth from the anal angle, the whole space inside this line blue-green; anal lobe damaged on both wings, but is evidently much restricted and has a blackish patch; face, pectus, and entire body brown; legs ochreous grey.

Expanse of wings $2\frac{1}{10}$ inches.

Celebes (*Wallace*) (type in B. M.).

A good and distinct species.

LXII.—*The Significance of the Pattern of the Cubs of Lions (Felis leo) and of Pumas (Felis concolor)*. By R. I. Pocock, F.L.S., F.Z.S., Superintendent of the Zoological Society's Gardens.

[Plates XIX. & XX.]

As a very general, perhaps invariable, rule, members of the cat tribe (*Felis*) that are spotted or striped when adult are